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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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30377	7590	11/17/2005	EXAMINER	
DAVID TOREN, ESQ. ABELMAN FRAYNE & SCHWAB 666 THIRD AVENUE NEW YORK, NY 10017-5621			GRAHAM, CLEMENT B	
			ART UNIT	PAPER NUMBER
			3628	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/716,189	<b>Applicant(s)</b> MACPHERSON, JAMES	
	<b>Examiner</b> Clement B. Graham	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-45 remained pending.

#### Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action: (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or unobviousness.
4. Claims 1-45, are rejected under 35 U.S.C. 103(a) as being unpatentable over in Nieboroer et al (Hereinafter Nieboroer U.S Patent 6, 418, 419 in view of Hawkins et al (Hereinafter Hawkins U.S. Patent 6, 029, 146 in view of Wilson U.S. Patent 5, 864, 827 in view of Harris et al (Hereinafter Harris U.S. Patent 5, 517, 406).

As per claims 1, 5, 10, Nieboroer discloses a method for processing mutual fund order messages, including purchase and redemption transactions, comprising the steps of:

receiving order messages at a server from at least one of a plurality of servers designated Exchanges.(see column 5 lines 25-45 and column 7 lines 48-65 and column 8 lines 1-20 and column 3 lines 22-45) and the order messages to at the server (see column 5 lines 25-45).

Nieboer fail to explicitly teach in Exchange Equity Order Entry Format, and Fund Order Entry Format, reformatting and transmitting order messages at the servers to at least one of a plurality of servers Fund/Securities Clearing Agents for confirmation, clearing and settlement.

However Hawkins discloses a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least

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receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include transmitting order messages at the servers to at least one of a plurality of servers Fund/Securities Clearing Agents for confirmation, clearing and settlement taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically.

Nieboer and Hawkins fail to explicitly teach in Exchange Equity Order Entry Format, and Fund Order Entry Format, and Reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

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Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include in an Exchange Equity Order Entry Format, and Fund Order Entry Format and Reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach aggregating orders by fund and the issuance and redemption of mutual funds shares by the mutual fund issuer. However Harris discloses In a typical scenario, 401(k) participants purchase and redeem shares in mutual funds through the transfer of payroll assets to a transfer agent (for a purchase) or through the transfer of fund assets to the participant (for a redemption). The transfer agent acts on behalf of the mutual fund or family of mutual funds in order to execute all transactions (including purchases, redemption and exchanges between funds) relating to one or more funds. All such transactions are subject to various tax reporting requirements and legal and accounting restrictions. (see column 1 lines 58-67) and column record keeper means for receiving participant mutual fund transaction requests ,aggregation said participant mutual fund transaction requests by mutual fund into omnibus plan trade files comprising a plurality of fields of information about said omnibus plan trades, and transmitting said omnibus plan trade files, host processor means, interacting with said record keeper means, for receiving said omnibus plan trade files, verifying at least one of the plurality of fields of information, processing said omnibus plan trades, and trade-acknowledgment confirming said omnibus plan trades to said record keeper means, transaction execution means, interacting with said host processor means, for executing said omnibus plan trades, wherein trade-acknowledgment confirmation occurs at a time prior to execution of said omnibus plan trades by said transaction execution means. (see column 17 lines 16-33 an column 18 lines 36-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include aggregating orders by fund taught by Harris in order to verify and trade acknowledgement confirms incoming transaction request.

Harris fail to explicitly teach the issuance and redemption of mutual funds shares by the mutual fund issuer.

However it would have been obvious for the teachings of Harris aggregating orders by fund which include purchase an redemption would have been capable of clearing and settlement including issuance and redemption of mutual funds shares by the mutual fund issuer.

As per claim 2, Nieboer fail to explicitly teach wherein the step of transmitting further comprises the step of forwarding the reformatted order messages from the server to at least one of servers of at least one of the individual Funds and Transfer Agents for processing and confirmation.

However Hawkins discloses the present invention solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include transmitting further comprises the step of forwarding the reformatted order messages from the server to at least one of servers of at least one of the individual Funds and Transfer Agents for processing and confirmation taught by Hawkins in order to perform clearing and transaction settlement.

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Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa.

The system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include in an Reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 3, Nieboer and Hawkins fail to explicitly teach wherein the step of forwarding said reformatted order messages from the server, in single batch and multi batch, throughout the day.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa.

The system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and

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translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include forwarding said reformatted order messages from the server taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach in single batch and multi batch, throughout the day.

However batch processing and real time processing is old ad well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 4, Nieboer and Hawkins fail to explicitly teach wherein the step of forwarding said reformatted order messages from the server, in single batch and multi batch, throughout the day.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa.

The system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and



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transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include forwarding said reformatted order messages from the server taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach in single batch and multi batch, throughout the day.

However batch processing and real time processing is old and well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 6, Nieboer fail to explicitly teach wherein said confirmation messages are received at the server periodically and at the end of the day.

However Hawkins discloses the present invention solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the

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accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include confirmation messages are received at the server taught by Hawkins in order to authenticate each transaction.

Nieboer, Hawkins and Wilson fail to explicitly teach periodically and at the end of the day.

However they are many ways in which transaction messages can be received for example, in real time, at the end of the day or after a group or groups of data has been processed.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include periodically and at the end of the day because they are many ways in which transaction messages can be received for example, in real time, at the end of the day or after a group or groups of data has been processed.

As per claim 7, Nieboer discloses further comprising the step of at least one of a plurality of ordering Member Firms. (column 5 lines 25-45 and column 3 lines 22-58). Nieboer and Hawkins fail to explicitly teach reformatting the confirmation messages at the server and transmitting said confirmation messages from the server to servers.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatting the confirmation messages at the server and transmitting said confirmation messages from the server to servers taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 8, Nieboer fail to explicitly teach wherein the step of transmitting said confirmation messages from the server, in single batch and multi batch, throughout the day.

However Hawkins discloses the present invention solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and

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will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include confirmation messages are received at the server taught by Hawkins in order to authenticate each transaction.

Nieboer, Hawkins and Wilson fail to explicitly teach periodically and at the end of the day.

However they are many ways in which transaction messages can be received for example, in real time, at the end of the day or after a group or groups of data has been processed.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins Wilson to include

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periodically and at the end of the day because there are many ways in which transaction messages can be received for example, in real time, at the end of the day or after a group or groups of data has been processed.

As per claim 9, Nieboer fails to explicitly teach wherein the step of transmitting said confirmation messages further comprises the step of delaying the transmission of said confirmation messages from the server, in single batch and multi-batch, until the end of the day.

However Hawkins discloses displays transaction information to brokers and clearing agents to make matching orders and executions easy (see column 8 lines 51-57) and solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprises a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

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Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include delaying the transmission of said confirmation messages from the server taught by Hawkins in order to view confirmation messages and transactions.

Nieboer, Hawkins and Wilson fail to explicitly teach in single batch and multi-batch, until the end of the day.

However batch processing and real time processing is old ad well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 11, Nieboer, fail to explicitly further comprising the step of paying at least one of cash dividends and reinvested dividends to at least one of a Member Firm's Depository Account and a Fund/Securities Clearing Agent's Account.

Nieboer fail to explicitly teach a Fund/Securities Clearing Agent's Account. However Hawkins discloses displays transaction information to brokers and clearing agents to make matching orders and executions easy (see column 8 lines 51-57) and solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order

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message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include a Fund/Securities Clearing Agent's Account taught by Hawkins in order to view confirmation messages and transactions.

Nieboer, Hawkins and Wilson fail to explicitly teach paying at least one of cash dividends and reinvested dividends.

However reinvesting dividends are commonly known functions in art of trading because it allows one to reinvest their distribution.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, to reinvesting dividends because it allows one to reinvestment their distribution.

As per claim 12, Nieboer discloses further comprising the step of receiving the order messages at a the server for tabulation.(see column 4 lines 10-13).

As per claim 13, Nieboer discloses further comprising the step of storing the order messages in a database.(see column 4 lines 10-13).

As per claim 14, Nieboer discloses further comprising the step of storing information relating to said order messages in the database.(see column 3 lines 30-35)

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Nieboer, Hawkins and Wilson fail to explicitly teach storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions.

However storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

As per claim 15 , Nieboer, Hawkins and Wilson fail to explicitly teach further comprising the step of receiving dividend information at the server for tabulation of order message information, comprising correct calculation of each fund's NAV, calculation of fund total returns over different time periods and fund assets held at each Member Firm.

However receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.



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As per claim 16, Nieboer discloses further comprising the steps of storing total return information in the database.(see column 3 lines 30-35)

Nieboer, Hawkins and Wilson fail to explicitly teach storing NAV including dividends and fund assets held at each Member Firm at different points in time.

However storing NAV including dividends and fund assets held at each Member Firm at different points in time are common, and are listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include storing NAV including dividends and fund assets held at each Member Firm at different points in time are common, and are listed on a customer's order statement and would have to be stored prior to printing those statements.

As per claim 17, Nieboer discloses further comprising the steps of sorting orders, performing calculations relating to orders at the server including the steps of tabulating orders into records and generating reports.(Note fig: 9 and see column 12 lines 50-59 and column 3 line 65 an column 4 lines 5-10).

As per claim 18, Nieboer discloses comprising the steps of receiving order messages at a first server of an Exchange from a second server at least one Member Firm.("i. e, sender"). (see column 5 lines 25-45 and column 7 lines 48-65 and column 8 lines 1-20 and column 3 lines 22-45) and matching and executing order messages at the first server. (see column 6 lines 31-36) and transmitting the matched and executed order messages from the first sever to servers at least one of a plurality of ordering Member Firms and for confirmation.(see column 3 lines 22-45 and column 5 lines 25-45).

Nieboer fail to explicitly teach to servers at least one of a plurality of Funds/Securities Clearing Agents for clearing and settlement.

However Hawkins discloses a database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the

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order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to servers at least one of a plurality of Funds/Securities Clearing Agents for clearing and settlement taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically.

Nieboer and Hawkins fail to explicitly teach in Exchange Equity Order Entry Format, and Fund Order Entry Format at the first server and transmitting reformatted order messages.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include

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Exchange Equity Order Entry Format, and Fund Order Entry Format at the first server and transmitting reformatted order messages taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 19, Nieboer and Hawkins fail to explicitly teach wherein the step of forwarding said reformatted order messages from the server, in single batch and multi batch, throughout the day.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa.

The system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include forwarding said reformatted order messages from the server taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach in single batch and multi batch, throughout the day.

However batch processing and real time processing is old ad well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 20, Nieboer and Hawkins fail to explicitly teach wherein the step of forwarding said reformatted order messages from the server, in single batch and multi batch, at the end of the day.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa.

The system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include forwarding said reformatted order messages from the server taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

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Nieboer and Hawkins and Wilson fail to explicitly teach in single batch and multi batch, at the end of the day.

However batch processing and real time processing is old ad well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 21, Nieboer discloses further comprising the step of transmitting the matched and executed order messages from the first server to a third server for tabulation and processing.(see column 3 lines 22-35 an column 4 lines 5-13).

As per claim 22, Nieboer discloses further comprising the step of storing the matched and executed order messages in a database..(see column 4 lines 10-13).

As per claim 23, Nieboer discloses further comprising the step of storing information relating to said order messages in the database.(see column 3 lines 30-35).

Nieboer, Hawkins and Wilson fail to explicitly teach storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions.

However storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer , Hawkins and Wilson to include storing by date Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

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As per claim 24, Nieboer, Hawkins and Wilson fail to explicitly teach further comprising the step of receiving dividend information at the server for tabulation of order message information, comprising correct calculation of each fund's NAV, calculation of fund total returns over different time periods and fund assets held at each Member Firm.

However receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.

As per claim 25, Nieboer discloses further comprising the steps of storing total return information in the database.(see column 3 lines 30-35)

Nieboer, Hawkins and Wilson fail to explicitly teach storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time.

However storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time are common, because these fields are listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time are common, because these fields

are listed on a customer's order statement and would have to be stored prior to printing those statements.

As per claim 26, Nieboer discloses further comprising the steps of sorting orders, performing calculations relating to orders at the server including the steps of tabulating orders into records and generating reports.(Note fig: 9 and see column 12 lines 50-59 and column 3 line 65 an column 4 lines 5-10).

As per claim 27, Nieboer discloses wherein the step of transmitting the matched and executed order messages from the first server to the servers.(see column 6 lines 31-34)

Nieboer fail to explicitly the Funds/Securities Clearing Agents further includes the step of transmitting matched and executed order messages from the first server to servers of at least one of a plurality of Depositories.

However Hawkins discloses the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include the Funds/Securities Clearing Agents further includes the step of transmitting matched and executed order messages from the first server to servers of at least one of a plurality of

Depositories taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically.

Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 28, Nieboer fails to explicitly teach further comprising the step of settlement of said matched and executed orders, including Depository eligible book entry orders, through servers at least one of the Fund/Securities Clearing Agents using at least one Fund/Securities Clearing Agent's continuous, daily and other money settlement system.

However Hawkins discloses the present invention solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and



will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants.(Note abstract and see column 3 lines 26-38).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include of settlement of said matched and executed orders, including Depository eligible book entry orders, through servers at least one of the Fund/Securities Clearing Agents using at least one Fund/Securities Clearing Agent's continuous, daily and other money settlement system taught by Hawkins in order to trade securities whereby trade confirmation are performed automatically.

Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange)

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system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach issuance and redemption of mutual funds shares by the mutual fund issuer.

However Harris discloses In a typical scenario, 401(k) participants purchase and redeem shares in mutual funds through the transfer of payroll assets to a transfer agent (for a purchase) or through the transfer of fund assets to the participant (for a redemption). The transfer agent acts on behalf of the mutual fund or family of mutual funds in order to execute all transactions (including purchases, redemption and exchanges between funds) relating to one or more funds. All such transactions are subject to various tax reporting requirements and legal and accounting restrictions. (see column 1 lines 58-67) and column record keeper means for receiving participant mutual fund transaction requests ,aggregation said participant mutual fund transaction requests by mutual fund into omnibus plan trade files comprising a plurality of fields of information about said omnibus plan trades, and transmitting said omnibus plan trade files, host processor means, interacting with said record keeper means, for receiving said omnibus plan trade files, verifying at least one of the plurality of fields of information, processing said omnibus plan trades, and trade-acknowledgment confirming said omnibus plan trades to said record keeper means, transaction execution means, interacting with said host processor means, for executing said omnibus plan trades, wherein trade-acknowledgment confirmation occurs at a time prior to execution of said omnibus plan trades by said transaction execution means. (see column 17 lines 16-33 an column 18 lines 36-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include aggregating orders by fund taught by Harris in order to verify and trade acknowledgement confirms incoming transaction request.

Harris fail to explicitly teach the issuance and redemption of mutual funds shares by the mutual fund issuer.

However it would have been obvious for the teachings of Harris aggregating orders by fund which include purchase and redemption would have been capable of clearing and settlement including issuance and redemption of mutual funds shares by the mutual fund issuer.

As per claim 29, Nieboer, fail to explicitly further comprising the step of paying at least one of cash dividends and reinvested dividends to at least one of a Member Firm's Depository Account and a Fund/Securities Clearing Agent's Account.

Nieboer fail to explicitly teach a Fund/Securities Clearing Agent's Account.

However Hawkins discloses displays transaction information to brokers and clearing agents to make matching orders and executions easy (see column 8 lines 51-57) and solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification

messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include a Fund/Securities Clearing Agent's Account taught by Hawkins in order to view confirmation messages and transactions.

Nieboer, Hawkins and Wilson fail to explicitly teach paying at least one of cash dividends and reinvested dividends.

However reinvesting dividends are commonly known functions in art of trading because it allows one to reinvest their distribution.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, to reinvesting dividends because it allows one to reinvestment their distribution.

As per claims 30, 34-36, 37, Nieboer discloses computer implemented system for processing mutual fund order messages, including purchase and redemption and buy and sell transactions, comprising a first server for receiving order messages from servers at least one of a plurality of designated Exchanges. (see column 5 lines 25-45 and column 7 lines 48-65 and column 8 lines 1-20 and column 3 lines 22-45) and at the first server and transmitting the order messages to servers at least one.(see column 6 lines 31-34).

Nieboer fail to explicitly teach a plurality of Fund/Securities Clearing Agents for confirmation, clearing and settlement.

However Hawkins discloses a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first

notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and to include a plurality of Fund/Securities Clearing Agents for confirmation, clearing and settlement taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically.

Nieboer and Hawkins fail to explicitly teach in Exchange Equity Order Entry Format and reformatted Fund Order Entry Format and reformatting the order messages.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include in Exchange Equity Order Entry Format and reformatted Fund Order Entry Format reformatting the order messages taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market

(exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach aggregating orders by fund and the issuance and redemption of mutual funds shares by the mutual fund issuer. However Harris discloses In a typical scenario, 401(k) participants purchase and redeem shares in mutual funds through the transfer of payroll assets to a transfer agent (for a purchase) or through the transfer of fund assets to the participant (for a redemption). The transfer agent acts on behalf of the mutual fund or family of mutual funds in order to execute all transactions (including purchases, redemption and exchanges between funds) relating to one or more funds. All such transactions are subject to various tax reporting requirements and legal and accounting restrictions. (see column 1 lines 58-67) and column record keeper means for receiving participant mutual fund transaction requests ,aggregation said participant mutual fund transaction requests by mutual fund into omnibus plan trade files comprising a plurality of fields of information about said omnibus plan trades, and transmitting said omnibus plan trade files, host processor means, interacting with said record keeper means, for receiving said omnibus plan trade files, verifying at least one of the plurality of fields of information, processing said omnibus plan trades, and trade-acknowledgment confirming said omnibus plan trades to said record keeper means, transaction execution means, interacting with said host processor means, for executing said omnibus plan trades, wherein trade-acknowledgment confirmation occurs at a time prior to execution of said omnibus plan trades by said transaction execution means. (see column 17 lines 16-33 an column 18 lines 36-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include aggregating orders by fund taught by Harris in order to verify and trade acknowledgement confirms incoming transaction request.

As per claim 31, Nieboer fail to explicitly teach wherein servers at least one of the Fund/Clearing Agents forwards the order messages to servers at least one of individual Funds and Transfer Agents for processing and confirmation.

However Hawkins discloses a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and to include least one of the Fund/Clearing Agents forwards the order messages to servers at least one of individual Funds and Transfer Agents for processing and confirmation taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically.

Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 32, Nieboer fail to explicitly teach wherein the step of forwarding comprises forwarding said order messages from the server, in single batch and multi batch, throughout the day.

However Nieboer discloses, a primary object of the present invention is to efficiently transact conditional buy and sell orders for items of commerce by multiple traders in real-time. (see column 2 lines 1-5).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins performing transactions in real time would have been a more timely and efficient way in conducting the processing of mutual funds orders messages in appose to in single batch and multi batch, throughout the day.

Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).



Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 33, Nieboer fail to explicitly teach wherein the step of forwarding comprises forwarding said order messages from the server, in single batch and multi-batch, at the end of the day.

However Nieboer discloses, a primary object of the present invention is to efficiently transact conditional buy and sell orders for items of commerce by multiple traders in real-time. (see column 2 lines 1-5).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins performing transactions in real time would have been more advantageous than batch processing whereby transaction are group together for processing at the end of the day. Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange) system(s) which utilize the same and/or different protocols that differ from the common protocol.

As per claim 38, Nieboer fail to explicitly teach wherein the step of transmitting said confirmation messages further comprises the step of delaying the transmission of said confirmation messages from the server, in single batch and multi-batch, until the end of the day.

However Hawkins discloses displays transaction information to brokers and clearing agents to make matching orders and executions easy (see column 8 lines 51-57) and solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message

in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include delaying the transmission of said confirmation messages from the server taught by Hawkins in order to view confirmation messages and transactions.

Nieboer, Hawkins and Wilson fail to explicitly teach in single batch and multi-batch, until the end of the day.

However batch processing and real time processing is old and well known in the art because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include batch processing and real time processing because batch processing allows an institution to process data in a group or groups at the end of the day whereas real time provides instant processing of data.

As per claim 39, Nieboer fail to explicitly teach wherein servers at least one of said Fund/Securities Clearing Agents and servers at least one of said Depositories use at least one of said Fund/Securities Clearing Agent's money settlement systems to settle orders included in said order messages.

However Hawkins discloses a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation

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message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for settling the transaction. (see column 21 lines 59-65 and column 4 line 65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and to include Fund/Securities Clearing Agents and servers at least one of said Depositories use at least one of said Fund/Securities Clearing Agent's money settlement systems to settle orders included in said order messages taught by Hawkins in order to trade securities electronically between brokers in which trade confirmation is performed automatically. Nieboer and Hawkins fail to explicitly teach reformatted.

However Wilson discloses present invention provides a system and method whereby a broker can automatically translate transaction information received electronically from a customer in a certain protocol or language into a protocol or language compatible with a system used by a financial market (exchange) to which the transaction information is transmitted, and vice versa the system according to the present invention includes a gateway which receives and transmits transaction information from/to at least one customer system, receives and transmits transaction information from/to a plurality of markets (exchanges), and translates transaction information from a first protocol, i.e., format and/or language, into at least a second protocol and vice versa. (see column 3 lines 1-50).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins to include reformatted taught by Wilson in order to provide a gateway for the transfer of information between financial markets (exchanges) and customers and specifically, for providing a gateway for the transfer of information between one or more customer system(s) which utilize a common protocol and one or more financial market (exchange)

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system(s) which utilize the same and/or different protocols that differ from the common protocol.

Nieboer and Hawkins and Wilson fail to explicitly teach aggregating orders by fund and the issuance and redemption of mutual funds shares by the mutual fund issuer. However Harris discloses In a typical scenario, 401(k) participants purchase and redeem shares in mutual funds through the transfer of payroll assets to a transfer agent (for a purchase) or through the transfer of fund assets to the participant (for a redemption). The transfer agent acts on behalf of the mutual fund or family of mutual funds in order to execute all transactions (including purchases, redemption and exchanges between funds) relating to one or more funds. All such transactions are subject to various tax reporting requirements and legal and accounting restrictions. (see column 1 lines 58-67) and column record keeper means for receiving participant mutual fund transaction requests ,aggregation said participant mutual fund transaction requests by mutual fund into omnibus plan trade files comprising a plurality of fields of information about said omnibus plan trades, and transmitting said omnibus plan trade files, host processor means, interacting with said record keeper means, for receiving said omnibus plan trade files, verifying at least one of the plurality of fields of information, processing said omnibus plan trades, and trade-acknowledgment confirming said omnibus plan trades to said record keeper means, transaction execution means, interacting with said host processor means, for executing said omnibus plan trades, wherein trade-acknowledgment confirmation occurs at a time prior to execution of said omnibus plan trades by said transaction execution means. (see column 17 lines 16-33 an column 18 lines 36-57).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer and Hawkins and Wilson to include aggregating orders by fund taught by Harris in order to verify and trade acknowledgement confirms incoming transaction request. Harris fail to explicitly teach the issuance and redemption of mutual funds shares by the mutual fund issuer.

However it would have been obvious for the teachings of Harris aggregating orders by fund which include purchase and redemption would have been capable of clearing and settlement including issuance and redemption of mutual funds shares by the mutual fund issuer.

As per claim 40, Nieboer, fail to explicitly further comprising the step of paying at least one of cash dividends and reinvested dividends to at least one of a Member Firm's Depository Account and a Fund/Securities Clearing Agent's Account.

Nieboer fail to explicitly teach a Fund/Securities Clearing Agent's Account. However Hawkins discloses displays transaction information to brokers and clearing agents to make matching orders and executions easy (see column 8 lines 51-57) and solves this problem by providing a system and method for direct broker to broker trading that will automatically match an investor's security order with an executing broker's match confirmation and will automatically generate and route via the SWIFT Financial Network a settlement instruction to the investor's clearing agent. By allowing securities participants to match orders to executions in trade date and by automatically generating pre-matched settlement instructions to clearing agents on trade date, the system will increase the accuracy, reduce the cost, reduce the inherent financial risk and increase the rate of settlement for all security participants (see column 21 lines 59-65 and column 4 line 65) and a database, the database storing standing delivery instructions relating to at least a first broker, a data communication device for at least receiving an order message in a secure financial network format from the first broker, wherein the order message comprise a buy order or a sell order for trading securities, forwarding the order message in the secure financial network format to a second broker, receiving a confirmation message verifying execution of the order message in the secure financial network format from the second broker and forwarding the confirmation message in the secure financial network format to the first broker, forwarding a first notification message in the secure financial network format to a first clearing agent, and forwarding a second notification message in the secure financial network format to a second clearing agent, wherein the first and second notification messages comprise settlement instructions for

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settling the transaction. (see column 21 lines 59-65 and column 4 line 65 and column 2 lines 51-56 and column 7 lines 47-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer to include a Fund/Securities Clearing Agent's Account taught by Hawkins in order to view confirmation messages and transactions.

Nieboer, Hawkins and Wilson fail to explicitly teach paying at least one of cash dividends and reinvested dividends.

However reinvesting dividends are commonly known functions in art of trading because it allows one to reinvest their distribution.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, to reinvesting dividends because it allows one to reinvestment their distribution.

As per claim 41, Nieboer discloses wherein said first server tabulates said order messages.(see column 4 lines 5-12).

As per claim 42, Nieboer discloses wherein the first server further comprises a database for storing said order messages. (see column 4 lines 10-13).

As per claim 43, Nieboer discloses further comprising the step of storing information relating to said order messages in the database.(see column 3 lines 30-35) Nieboer, Hawkins and Wilson fail to explicitly teach storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions.

However storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include storing by date, Member Firms and funds, including gross purchase and redemption and historical orders, dividends, and net fund positions are commonly

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known to be listed on a customer's order statement and would have to be stored prior to printing those statements.

As per claim 44 , Nieboer, Hawkins and Wilson fail to explicitly teach wherein said first server receives dividend information from servers at least one of the Fund/Transfer Agents for tabulation of order message information, comprising correct calculation of each fund's NAV, calculation of fund total returns over different time periods and fund assets held at each Member Firm.

However receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include receiving dividend information for tabulation of order message information and calculating each net asset value of the total returns over different times periods are common function perform during trading or processing of mutual funds orders because it calculate the net assets from the gross assets by subtracting the different fees and cost from the gross.

As per claim 45, Nieboer discloses further comprising the steps of storing total return information in the database.(see column 3 lines 30-35)

Nieboer, Hawkins and Wilson fail to explicitly teach storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time.

However storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time are common, because these fields are listed on a customer's order statement and would have to be stored prior to printing those statements.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Nieboer, Hawkins and Wilson to include



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storing NAV and total return information including dividends and fund assets held at each Member Firm at different points in time are common, because these fields are listed on a customer's order statement and would have to be stored prior to printing those statements.

#### Conclusion

5. Applicant's arguments files on 09/02/05 have been fully considered but they are moot in view of new grounds of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are for regular communications and 703-305-7687 for After Final communications.

6. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

CG

November 11, 2005

  
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